THE HERALD.

AGRICULTURAL.

The Benefits of Fall Ploughing.

That the ploughing of heavy soils in the fall is attended with excellent results is generally admitted. That any benefit accrues to a soil of lighter texture, is questioned by many agriculturists, with whom we do not altogether agree. All admit that the tenacious character of a clay soil is reduced, and its texture opened and rendered less compact by the operation of frost. The lumps fall apart, and are disintegrated by the mechanical effect of the expansion in the act of freezing of the water held between the particles. The field, which at the commencement of winter exhibited only a surface of shapeless clogs, in the spring is seen to have been brought into a condition of mellowness which no amount of plowing or harrowing could have effected. But is this the full effect of the forces of nature, which operate in small things as perfectly as in greater? The power which has forced asunder the clods, and reduced them to fragments, has also had an effect upon those fragments themselves, and has reduced them to particles so small that the solubility of the soil has been increased. Thus another effect besides a mechanical one has been produced; or rather the operation of mechanical force has brought about conditions under which chemical action can more readily take place. Now, can we believe that this result only occurs in the case of clay soil? If this should be so then, as there is a variety of such soils the effect must be proportioned to the nature of the soil. If a clay soil is benefited is not also a clay loam? And if a clay loam why not a sandy? If the particles of a clay soil are rendered more soluble by this exposure to the frosts of winter, and those particles are mainly alumina and silica, how can other soil altogether escape similar effects, when only the proportion in which these constituents are combined are changed. But we are told that clay soils are absorbent, while more silicious soils are more or less leachy, and part with their fertile properties by the percolation of water through them. Then, if this were true, a light or sandy soil would in course of time be washed free from all fertilizing properties. But this is not the case with these soils. They can be improved by the addition of manure until their characters are changed; the added color and other qualities are not washed away. If this idea of leachiness, then, is unfounded, no harm, but only benefit, can result from ploughing such soils in the fall. They will experience as much improvement in one sense as a heavier clay soil. The reduction of hard lumps is not necessary, for these soils are naturally mellow, but an increased solubility will have been gained. But one other benefit must not be forgotten here, which is that deeper ploughing is permissible in the fall, and six months' exposure to the sudden changes from frost to thaw will bring the hitherto unused soil into condition for assisting to bear crops. We do not advise the ploughing of sod at this season, at least for a corn crop. This should be postponed until the last possible day in the spring consistent with having the ground prepared in time. But for roots or oats, or other spring crops than corn, we would plough now and manure through the winter, when a mellow and rich soil some inches in depth will be ready to be stirred again in the spring; and this we would do irrespective of the quality of the soil, whether it be clay or a light loam. Potatoes planted in a gravelly loam thus prepared have with us given double the yield of those in ground not so treated. Oats, too, have been benefited greatly, but the result with corn was unfavorable, mainly, we believe, on account of the greater development of weeds, which prevented the crop from being kept clean.

We have not adverted the economy of time resulting from having the ground ploughed before winter and ready for a second ploughing early in the spring; but this is a point worthy of attainment under any circumstances. Farm operations depend very much for their success on "taking time by the forelock," and keeping work well pushed forward; and to have all the stubbles ploughed before winter sets in, must be a comfort to any farmer.—*American Agriculturist.*

Oiling Harness.

A good harness is costly, but if properly used and cared for will last a good many years. If neglected it will soon need repairs, and in a short time become utterly worthless. In caring for a harness one great point is to see that it is suitably oiled. A work harness, in use on a farm, should be oiled twice a year, in the spring and fall. It should be be taken entirely apart; the places where sweat and dirt have collected cleaned with a chip or an old case-knife, then washed clean in warm water, in which a little Castile soap has been dissolved. As they are washed the straps should be hung on a pole to dry.

When the outside is nearly dry, but before the moisture is all out of the leather, the oil should be applied. This may be done with a clean paint brush, which is the best thing for the purpose, a sponge or woolen cloth. A moderate quantity should be used, and if it does not soften the leather enough, another light coating may be applied when the first one is well dried in. This is better than it is to put on a great deal at once.

Care should be taken to obtain a good quality of oil. Neat's food is the very best kind of oil for leather. There are some patent preparations in which a water-proof ingredient is added to the oil, and also a little coloring substance to make the leather look black and glossy. An honest mixture of this kind is better than crude oil. Cheap oils are generally poor. When dry, the harness should be rubbed with Castile soap, then with a dry woolen cloth. When this is done, it may be put together and used. This work should not be neglected until the hurry of planting and hoeing time, but should receive attention now.—*Live Stock Journal.*

Sheep as Enrichers.

H. G. Abbott writes to the Germantown *Telegraph*: In 1865 I had a field of ten acres that had been mowed some ten years in succession without a particle of dressing put upon it, the grass had completely died out, and nothing was to be seen but white weed and yellow weed, or butter-cup and ox-eyed daisy. The soil was a clayey loam canting a little to the south and west, was in the smoothest possible condition, without a stump or stone, and bordering upon a stream of water. In the spring of the same year I put upon this field of ten acres forty one-year old sheep without lambs. These sheep kept everything down as smooth as a barn floor. The next year I put on the same number and kept them on until the time to come to the barn. They were not taken from the field at any time during the season, neither did they have any grain of any kind, but were in splendid condition. They were grade Merinos.

In the spring of 1867 I noticed that the field looked green the last of April and the first of May, so much so that in consulting with my neighbors I was induced to keep off from it and let it come up to grass for the scythe. The field in the meantime had been sowed over with a light dressing of plaster, about one bushel to the acre, and a small quantity of grass seed, timothy and red top. Nothing else has been done to the field in any shape up to the present time.

Now for the result. The first year after taking the sheep off I had the greatest yield of grass that I ever had from any of my fields under other treatment, and of the best quality, a mixture of timothy, red top, white clover and some grass that I cannot name. Hardly a head of white weed was seen on the field.

But what is the most remarkable to me and my neighbors is, that the field has continued to produce bountifully up to the present time, which is eight years since the sheep were taken off; and to-day (August 2d) the field is tented thick with bunches of the very best hay, averaging over one ton to the acre. I have since sold the field to one of my friends, and asked him if he expected to get another crop from the field without dressing it again. His reply was, "Yes, I expect to get several more."

Grass and Grass Seed.

Worthy Master and Patrons—A large area of our lands has for some years been in grass, and each year a great addition is made to that area; so that we are not only in the "Blue Grass region," but our interest, as Farmers and Grangers, in the sowing and rising of the best kind of grasses, is deeply involved; and it may be that a short time spent in reviewing this branch of farming will not prove in vain.

To the casual observer—knowing nothing about the way in which the seed is procured; the manner in which it is sown, the profit resulting therefrom, and the cost in labor and money involved—this subject may not be uninteresting.

Since the formation of this Grange, it has been our privilege as members to discuss some important questions bearing on methods of farming, fencing, sowing and reaping, and the amount of money we annually pay out of the hardly earned proceeds for that which is of no profit. One of those expenditures, and which crops out in huge dimensions, is the yearly purchase of grass seeds. As Kentuckians we are reproached for every thing—even to axe, hoe and broom handles! The lack of suitable timber and convenient tools, may furnish an excuse in those items. But as Grangers, with "*Reform*" as our motto—possessing lands that have all the essential qualities to produce as good grass as the sun ever shines upon, with generally good seasons for maturing the seed, and more than enough, if secured, to supply our demand, it is a subject for our serious consideration. Is it not a mistake to neglect to gather and secure, from our own lands, the grass seeds we need? and does not that mistake cause an unnecessary expenditure of money? If so, let the mistake be acknowledged; and let us practice what we are preaching. If we neglect to gather the abundance of seed that a kind Providence places within our reach, (as was the case all around us last season), and in the spring discover that the timothy had dried up in the drouth, and the clover frozen out,—we are aroused to a sense of our wants, and realize the truth of the adage: "a willful waste makes a woeful want."

I would remark, that there is no field from, which seed can be taken, but enough will remain to supply any deficiency in the set; consequently the seed wasted last year, where none was needed, had it been gathered by us, would have resulted in a clear gain, in seed and money saved, and also enabled us to have sown at any time we desired. We all know, that when seed has to be purchased in the spring, it is frequently difficult to raise the necessary funds; and that often the grocery bills have to be curtailed, and some desirable things—including, perhaps, your county, or agricultural paper—dispensed with, in order that you may have the cash to buy seed to re-sow your fields.

That is the way the seeds is very often procured. And now, as to the manner in which it is sown.

After much delay you obtain the seed; you know not where it came from; how it was preserved through the winter; whether or not it heated in the chaff, or was even ripe when gathered. The rye or wheat fields on which it is to be sown are hard and smooth, and the winds help you to scatter the seed; depositing the heavy in one place, and the light in another,—the clover here; the timothy there. Much of it fails to find an entrance in the soil, and a quick shower leaves it in bunches; and you discover, when too late, that some of it is too thick to grow, and a part of the best lands producing nothing but weeds. In short you have "sown to the winds."

What is the profit resulting therefrom? To sow sparingly and expect a large yield; to think that your fields will be refreshed, the soil deepened and invigorated by the fertilizing effects of such cropping; and that it now is in a condition to cultivate in corn as a regular rotation of crops, is expecting more than ever was promised to mortal man. To foot up the profits; the seed cost double its first value; the crop of hay not over second class; and the land full of thistles, wild carrot, and other weeds, bought with the seed. The dry summer may kill the timothy; the winter destroy the clover, but not so with the weeds—they came to stay! So verily, you have litterly "reaped the whirlwind."

Now, let us consider the cost in labor and money. It is just as true in sowing grass seed, as in any other part of the farm operations, that "what is not worth doing well, is not worth doing any way." The same time is consumed in a half preparation of the ground and seed sowing, as would be taken to put it in well with the drill, and the seed would be covered at once. The reason why more blue grass seed is not saved in this section is, that we graze our pastures too much, for the grass to mature good seed. The same is true, but to a less extent, of clover and timothy, and they are cut for hay, regardless of seed. In this connection, I would suggest to those who desire to raise good seed—either blue-grass or timothy—to set apart several acres of good fresh upland; divest it of everything but the grass it is desired to grow; and let no stock be put on it. At harvest, the abundant yield of seed will demonstrate the wisdom of the procedure. In sowing fields intended for grazing, I would sow equal parts of blue grass, timothy and clover, for hay equal parts of timothy and clover. The timothy will not only protect the clover in winter, but keep it from falling in summer.

Very few farmers have any conception of the amount of money now paid out annually, in this county, for grass seeds. For many years, it only required a few sacks of seeds—procured mostly from our farmers, and sold by two dry goods merchants in town—to supply the demand. Now there are in Shelbyville two seed stores; the proprietors of which are gentlemen fully alive to the interests of their friends. They inform us that, under the head of "Seeds," they sold last spring nearly $7,000 worth! They tell us, that they prefer purchasing the seeds grown in the county, and thus keep the money at home. From reliable sources of information on the subject, we are satisfied that the annual outlay of seeds, in this county, exceeds $15,000. Our worthy brother, the State Agent at Louisville, informs us that during the months of February and March last, they ordered $80,000 worth of seeds. You will bear in mind, that the Agency was then in its infancy, and had eight or ten long established seed stores in Louisville in competition with them, and every thing locked up in ice.

This is no fancy sketch, but stubborn facts. The greater part of this amount is taken from the pockets of our small farmers, who feel it a life and death struggle to buy seed, and cultivate their farms.—*G. W. Riley for Chestnut Grove Grange, in Shelbyville Republican Sept. 22.*

The Grange and our Young Men.

The efforts of the Patrons of Husbandry to elevate the calling of the farmer and put it upon an equality with other pursuits, are being crowned with signal success, and are doing a great deal towards making our young men satisfied with the vocation of the farmer. The old idea that a farmer must be ignorant, uncouth, and uninformed, is rapidly taking leave of the public mind. We number some of the leading minds in the State among the farmers of Mississippi, some of the strongest and best thinkers, some of the truest and broadest statesmen. Here is great encouragement for our farmer boys.

We hope our farmers, and especially our young men, will show a disposition to distinguish themselves in some other way than by being a village loafer or a hanger-on at groceries, and it is just here that the teachings and associations in the Grange come and direct aright the laudable ambition of our youth. It throws its protecting arms around and about our young men who are members and encourages them in their efforts to lead sober, industrious and upright lives. This is some of the good work that every well-conducted Grange is accomplishing, and the fruits are daily becoming more and more manifest.—*Farmer's Vindicator.*

Improvement of Clayey Soils.

One of the principal defects of clayey soils, especially where they rest upon a subsoil of the same nature, is the excess of water which is held in them. The only effectual way, in a majority of cases, to get rid of this is by thorough underdraining. This draws off by imperceptible degrees all the excess of water, and opens the soil to the free admission of the air, which in its passage through it imparts warmth and such fertilizing gases as it may contain. Open drains or ditches, though less effectual, are useful. In some cases, water furrows, terminating in some ravine or ditch, serve a good purpose. Lime is exceedingly useful as an ameliorator of clayey soils, inducing chemical combinations, the mechanical effects of which is to break up too great a tenacity of the clay, while it adds, at the same time, an element of fertility which may perhaps be wanting. Gypsum, or plaster of Paris, has the same effect in a still more powerful degree. Ashes, coarse vegetable manures, straw, leaves, chips, etc., are also very useful, adding new materials to the soil, and tending to separate its particles and destroy their strong cohesion. Clayey lands must never be ploughed when wet.—*North Carolinian.*

HOUSEHOLD HINTS.

Valuable Recipes.

LONDON BROWN.—For six pounds of yarn or cloth take one and a quarter pounds of camwood, quercitron bark, one pound logwood, four ounces copperas. Boil the camwood, quercitron and logwood for an hour; add the copperas; put in the yarn and stir briskly for an hour at boiling heat. Rinse in cold water.

YEAST AND HOME-MADE BREAD.—Boil one pound of good flour, a quarter of a pound of moist sugar, and half an ounce of salt, in two gallons of water, for an hour. When nearly cold, bottle and cork it closely. It will be fit for use in twenty-four hours, and one pint will make eighteen pounds of bread.

GRAHAM MUFFINS.—Take one quart of Graham flour, one half cup of brown sugar, one teaspoonful of salt, two tablespoonfuls of yeast, warm water or milk sufficient to stir readily with a spoon. When light, stir again, drop in rings and bake. If made over night it may be necessary to add a little soda before baking. Do not bake too hard.